

WHAT IS CLAIMED IS:

1. A method for managing faults in a web service architecture comprising:
 - receiving a service request in a web service language, wherein the service
 - 5 request comprises invoking a service over a network;
 - executing the service request;
 - encountering an exception during the execution, wherein the execution
 - comprises a fault preventing the fulfillment of the service request;
 - persisting the fault; and
 - 10 providing a fault response.
2. The method of Claim 1, further comprising translating the service request into a non-web service language.
- 15 3. The method of Claim 1, wherein the service request is received from a service consumer, the service consumer coupled to the network.
4. The method of Claim 3, wherein the fault response is provided to a fault service consumer, and wherein the fault service consumer is coupled to the
- 20 network.
5. The method of Claim 4, wherein the fault service consumer is the same as the service consumer.
- 25 6. The method of Claim 1, wherein persisting the fault comprises labeling the fault with a unique identifier.
7. The method of Claim 6, further comprising storing the fault in a database.
- 30 8. The method of Claim 7, further comprising storing multiple faults in the database, the storage comprising storing fault information.

9. The method of Claim 8, wherein providing a fault response comprises providing access to the database, the access operable to permit a user to track any fault stored in the database.

5 10. The method of Claim 8, wherein providing a fault response further comprises presenting the fault information in a console, the console operable to list the fault information stored in the database.

11. A system for managing faults in a service-oriented architecture comprising:

a service interface operable to receive a service request via a network;

5 a service implementation coupled to the service interface, the service implementation operable to perform the service request and determine the source of any fault encountered in the performance;

a persistent store operable to persist any faults encountered in the performance; and

a fault service interface operable to transmit fault information.

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12. The system of Claim 11, further comprising a fault service implementation coupled to the fault service interface, the fault service interface operable to retrieve the fault information from the persistent store.

15 13. The system of Claim 11, wherein the service request is received in a web service language.

14. The system of Claim 13, wherein the service interface is operable to translate the service request into a non-web service language.

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15. The system of Claim 12, wherein the fault service interface is further operable to receive fault status requests in a web service language and translate the fault status request into a non-web service language.

25 16. The system of Claim 11, further comprising a service consumer, the service consumer coupled to the network and operable to transmit the service request to the service interface.

30 17. The system of Claim 11, further comprising a fault service consumer, the fault service consumer coupled to the network and operable to receive the fault information from the fault service interface.

18. The system of Claim 17, wherein the fault service consumer and the service consumer are the same consumer.

19. The system of Claim 12, further comprising a fault network coupled to the network, the fault network operable to couple the service interface, service implementation, persistent store, and fault service interface.

20. The system of Claim 11, wherein the persistent store is a database operable to store faults encountered during the performance.

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21. The system of Claim 11, wherein the service implementation is further operable to attach a unique identifier to each fault.

22. The system of Claim 21, wherein the service implementation is further operable to direct the persistent store to store any faults according to the unique identifier.

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23. The system of Claim 20, wherein the database is further operable to store the faults in a web service language.

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24. The system of Claim 12, wherein the fault service implementation is further operable to translate the fault information into a web service language.

25. The system of Claim 12, further comprising a console, the console operable to display fault information retrieved by the fault service implementation.

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26. A system for managing faults in a web service architecture comprising:
a web service module coupled to a network and operable to manage service
requests in a web service language;
a diagnostic module operable to fulfill the service request and identify faults
5 associated with the service request; and
a fault persistence module operable to store the faults in a persistent store.

27. The system of Claim 26, wherein the web service language is any
protocol registered in the Universal Description Discovery and Integration registry.

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28. The system of Claim 26, wherein the web service language is a remote
procedure call.

29. The system of Claim 26, wherein the web service language is a
15 HyperText Transfer Protocol.

30. The system of Claim 26, wherein the web service language is an
application service interface.

20 31. The system of Claim 30, wherein the application service interface is
Java message service.

32. The system of Claim 26, wherein the web service language is a
protocol approved as a web service description language approved by the World Wide
25 Web Consortium.

33. The system of Claim 26, wherein the persistent store is a database
dedicated to the fault persistence module.

30 34. The system of Claim 26, wherein the web service module is further
operable to receive service requests.

35. The system of Claim 26, further comprising a sub-network coupled to the web services module.

36. The system of Claim 35, further comprising at least one internal system, the at least one internal system coupled to the sub-network and operable to provide information required by the service request.

37. The system of Claim 36, wherein the diagnostic module is further operable to identify any faults caused by the at least one internal system.

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38. The system of Claim 37, wherein the diagnostic module is further operable to communicate any faults to the fault persistence module.

39. The system of Claim 38, wherein the fault persistence module is further operable to label each fault with a unique identifier.

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40. The system of Claim 39, wherein the fault persistence module is further operable to direct the persistent store to organize each fault by a unique identifier.

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41. The system of Claim 26, wherein the web service module is further operable to receive a fault status request.

42. The system of Claim 41, wherein the fault status request is sent by a fault service consumer.

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43. The system of Claim 42, wherein the fault service consumer is coupled to the sub-network.

44. The system of Claim 42, wherein the fault service consumer and the service consumer are the same.

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45. A system for managing faults in a web services architecture comprising:

5 a system interface operable to receive a service request in a web services format, the system interface further operable to translate the service request into a non-web service format;

10 a service implementation operable to fulfill the service request, generate a fault report, and persist the fault, the persistence comprising storing the fault report in a persistent store, wherein generating a fault report comprises detecting a fault during the fulfillment of the service request, and persisting the fault comprises attaching a unique identifier to the fault report;

a fault service implementation operable to retrieve the fault report from the persistent store and translate the fault report into a web service format; and

15 a fault service interface operable to receive fault service requests and transmit a fault service response.